[028] Fig. 2 is a diagrammatic view of another preferred embodiment of an inventive multi-stage transmission; [[and]]

[029] Fig. 3 is a circuit diagram for the inventive multi-stage transmission according to Fig. 1 and Fig. 2;

Fig. 4 is a diagrammatic view of an embodiment of the multi-stage transmission having a differential;

Fig. 5 is a diagrammatic view of the multi-stage transmission with a clutch and a prime mover;

Fig. 6 is a diagrammatic view of the multi-stage transmission located between a starting element and a prime mover;

Fig. 7 is a diagrammatic view of the multi-stage transmission for a front-transverse installation with a prime mover;

Fig. 8 is a diagrammatic view of the multi-stage transmission with a prime mover and a damper;

Fig. 9 is a diagrammatic view of the multi-stage transmission with a power take off for an additional unit;

Fig. 10 is a diagrammatic view of the multi-stage transmission having a free wheel;

Fig. 11 is a diagrammatic view of the multi-stage transmission with an electric machine;

Fig. 12 is a diagrammatic view of one of the shafts having a retarder; and

Fig. 13 is a diagrammatic view showing the input and the output on the same side of the transmission housing.

[039] According to the invention, as shown in Fig. 10, it is possible to provide a free wheel(s) 42 on each adequate place of the multi-stage transmission, for example, between one shaft 66 and the housing G or, if that is the case, to connect two shafts.

[040] Furthermore, as shown in Fig. 13, the inventive design makes it possible to place on the same side of the transmission or of the housing G the input and the output (1, 2) for transverse, front-longitudinal, rear-longitudinal, or all-wheel systems. On the input side or on the output side can also be situated one axle differential 20 and/or one transfer differential, as shown in Fig. 4 .

[041] Within the range of an advantageous development, as shown in Fig. 5, the input shaft 1 can be, as needed, separated by a clutch element 24 from the engine or prime mover 30; it is possible to use as the clutch element a hydrodynamic converter, a hydraulic clutch, a dry starting clutch, a wet starting clutch, a magnetic powder clutch or a centrifugal clutch. It is also possible, as shown in Fig. 6, to situate such a starting element 28 in a power flow direction behind or downstream of the transmission in which case the input shaft 1 is permanently connected with the crankshaft 32 of the engine or the prime mover 30, as shown in Fig. 7. According to the invention, it is also possible to start off by way of [[a]] one of the shifting elements of the transmission. The brake 04 is preferably used as the starting element which is activated both in the first forward gear and in the first reverse gear.

[042] The inventive multi-stage transmission further makes situating a torsional vibration damper 34 between an engine or a prime mover 30 and the transmission possible, as shown in Fig. 8.

[043] Within the scope of another embodiment of the invention ~~(not shown)~~, as shown in Fig. 12, it is possible upon each shaft, preferably upon the input shaft 1 or the output shaft 2, to place a wear-free brake such as a hydraulic or electric retarder 44 or the like, which is especially important for use in commercial motor vehicles. There can also be provided on each shaft, preferably on the input shaft 1 or the output shaft 2, a power take off unit 38 for driving an additional unit(s) 36, as shown in Fig. 9.

[044] The shifting elements used can be designed as power shiftable clutches or brakes. Force-locking clutches or brakes can especially be used, such as multi-disc clutches, band brakes and/or tapered clutches. [[Form]] Force-locking

brakes and/or clutches can also be used as the shifting elements, such as synchronizer units or dog clutches.

[045] Another advantage of the multi-stage transmission here introduced, as shown in Fig. 11 is that upon each shaft an electric machine 40 can be mounted as a generator and/or as a added prime mover.